



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,609	03/07/2001	John David Begin	60314-196	7492

26096 7590 10/03/2003

CARLSON, GASKEY & OLDS, P.C.  
400 WEST MAPLE ROAD  
SUITE 350  
BIRMINGHAM, MI 48009

EXAMINER
----------

TONG, NINA C

ART UNIT	PAPER NUMBER
----------	--------------

2632

DATE MAILED: 10/03/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/800,609

Applicant(s)

BEGIN, JOHN DAVID

Examiner

Nina Tong

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 is/are allowed.
- 6) ☒ Claim(s) 4-15 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. Claims 4-12,14,15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4, the claimed feature is only mentioned how to determine the roll of the vehicle, which does not show how to propagating a previous position to current position as claimed in the preamble.

Regarding claims 5 & 6, line 1, please insert – information—after “heading”, respectively. Also, only heading information is used to propagate a previous position to current position. That means in claim 4, the determining roll step has nothing to do with the propagate a previous position to current position.

Regarding claim 6, please cancel either claim 5 or 6 since they both are redundant of each other.

Regarding claim 10, the claimed feature is only mentioned how to determine the pitch of the vehicle, which does not show how to propagating a previous position to current position as claimed in the preamble.

Regarding claims 14,15, it is unclear as to if the steps a and b are carrying only "when the vehicle is moving" or "when the vehicle is not moving". Or should the steps a and b are carrying under both conditions??

### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 13-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 5,862,511. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both are claiming the method of propagating a previous position to a current position in the vehicle navigation system with a plurality of inertial sensing signals while the vehicle is either moving or not moving. Patent '511 fails to specify the claimed determining a pitch and the low noise situation. However, since the accelerometer is employed in Pate '511 which inherently provided the vehicle pitch information. Also, it is well-known in the art of determining the low noise situation in order to provide a more accurate system. It would have been obvious to one of

ordinary skill in the art at the time the invention was made to have the accelerometer for providing the vehicle pitch information and monitoring the plurality of signals to determine the low noise situation in Patent '511 for providing a better and more accurate system.

4. Claims 13-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of U.S. Patent No. 6,029,111. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both are claiming the method of propagating a previous position to a current position in the vehicle navigation system with a plurality of inertial sensing signals while the vehicle is either moving or not moving. Patent '111 fails to specify the claimed determining a pitch and the low noise situation. However, since the accelerometer is employed in Pate '111 which inherently provided the vehicle pitch information. Also, it is well-known in the art of determining the low noise situation in order to provide a more accurate system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the accelerometer for providing the vehicle pitch information and monitoring the plurality of signals to determine the low noise situation in Patent '111 for providing a better and more accurate system.

5. Claims 13-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 5,991,692. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both are claiming the method of propagating a previous position to a current position in the vehicle navigation system with a plurality of inertial sensing signals while the vehicle is either

moving or not moving. Patent '692 fails to specify the claimed determining a pitch and the low noise situation. However, since the accelerometer is employed in Pate '692 which inherently provided the vehicle pitch information. Also, it is well-known in the art of determining the low noise situation in order to provide a more accurate system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the accelerometer for providing the vehicle pitch information and monitoring the plurality of signals to determine the low noise situation in Patent '692 for providing a better and more accurate system.

6. Claims 13-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 of U.S. Patent No. 6,532,419. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both are claiming the method of propagating a previous position to a current position in the vehicle navigation system with a plurality of inertial sensing signals while the vehicle is either moving or not moving. Patent '419 fails to specify the claimed determining a pitch and the low noise situation. However, since the accelerometer is employed in Pate '419 which inherently provided the vehicle pitch information. Also, it is well-known in the art of determining the low noise situation in order to provide a more accurate system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the accelerometer for providing the vehicle pitch information and monitoring the plurality of signals to determine the low noise situation in Patent '419 for providing a better and more accurate system.

7. Claims 13-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,308,134. Although

Art Unit: 2632

the conflicting claims are not identical, they are not patentably distinct from each other because they both are claiming the method of propagating a previous position to a current position in the vehicle navigation system with a plurality of inertial sensing signals while the vehicle is either moving or not moving. Patent '134 fails to specify the claimed determining a pitch and the low noise situation. However, since the accelerometer is employed in Pate '134 which inherently provided the vehicle pitch information. Also, it is well-known in the art of determining the low noise situation in order to provide a more accurate system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the accelerometer for providing the vehicle pitch information and monitoring the plurality of signals to determine the low noise situation in Patent '134 for providing a better and more accurate system.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 13,14 are rejected under 35 U.S.C. 102(e) as being anticipated by Morgan et al. (6,564,148).

Regarding claims 13,14,Morgan et al. discloses an integrated inertial VMS navigation device, which comprises 1) the claimed means for determining the pitch upon the received

Art Unit: 2632

inertial signals from the inertial sensor (col.12 claim 1); 2) means for providing an inertial navigation data from the inertial sensor and the pitch determining means (col.12 claim 1); 3) the claimed propagate a previous position to a current position is cited in col.12 claim 12; 4) the above information is provided when the vehicle is moving (col.12 claim 1); 5) the claimed determining whether the vehicle is not moving is met by the motion sensor (claim 1).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al. (6,564,148).

Regarding claim 15, although Morgan et al. fails to specify the claimed performing steps a and b when the vehicle is not moving, it is well-known in the art that the vehicle will stop occasionally during the traveling (such as before the traffic light). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the system of Morgan still functioning the same even when the vehicle is not moving since the vehicle will stop occasionally during the traveling (such as before the traffic light) for providing a better system and for performing the same function as desired.



*Allowable Subject Matter*

12. Claims 1-3 are allowed.

13. Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. Claims 4,10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

15. Claims 5-9,11,12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

*Conclusion*

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Millington disclosed a navigation system with road condition sampling.

- Application/Control Number: 09/800,609  
Art Unit: 2632

Page 9

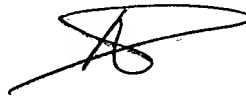
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nina Tong whose telephone number is 703-305-4831. The examiner can normally be reached on Mon-Wed. (9:30 -8:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 703-308-6730. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Nina Tong  
Primary Examiner  
Art Unit 2632

Nina Tong  
September 27, 2003

A handwritten signature in black ink, appearing to be 'Nina Tong', with a stylized, looping flourish.